

FLIGHT

The
AIRCRAFT
ENGINEER
&
AIRSHIPS

First Aero Weekly in the World

Founder and Editor: STANLEY SPOONER

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport
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DIARY OF FORTHCOMING EVENTS

Club Secretaries and others desirous of announcing the dates of important fixtures are invited to send particulars for inclusion in the following list:

Sept. 4-11	Brescia Races
Sept. 17	Royal Aero Club Race Meeting, Waddon Aerodrome, Croydon
Sept. 18	Gordon Bennett Balloon Race, Brussels
Oct. 1	Coupe Deutsch de la Meurthe
Oct. 22-30	Aero Exhibition, Prague
Nov. 3	Lecture, "Manœuvres of Getting Off and Landing," by Sq. Ldr. R. M. Hill, before R.Ae.S.
Nov. 12-27	Paris Aero Salon
Nov. 15-26	International Air Navigation Congress (Paris)
Nov. 17	Lecture, "Requirements and Difficulties of Air Transport," by Col. F. Searle, before R.Ae.S.
Dec. 1	Lecture, "Design of a Commercial Aeroplane," by Capt. G. de Havilland, before R.Ae.S.
Dec. 15	Lecture, "Development of the Fighting Aeroplane," by Capt. F. M. Green, before R.Ae.S.
1922.	
Jan. 5	Lecture, "Specialised Aircraft," by Wing-Com. W. D. Beatty, before R.Ae.S.
Jan. 19	Lecture, "Aeroplane Installation," by Brig.-Gen. R. K. Bagnall-Wild, before R.Ae.S.

EDITORIAL COMMENT



German
Gliding
Flight
Trials.

DEBARRED by the terms of the Peace Treaty from conducting experiments with full-powered aircraft, the Germans, determined not to be left behind in research, have filled the temporary gap by conducting trials with gliders. A full review of the experiments and their results appears in another part of this issue of FLIGHT, and will be found of absorbing interest to all who are concerned with the scientific research side of aviation. Some of the results attained have been little short of marvellous. If we had been told only a few months ago that it was possible to remain nearly a quarter of an hour in the air on a machine sans motor or any other form of propulsion, we should, to say the least, have been mildly sceptical. Yet this is actually what has been achieved. Just how far these experiments in gliding flight are likely to carry us it is impossible to say, and might be unwise to attempt to prophesy, but there is no doubt they carry us some little way along the road to the solution of the problem of soaring flight. It may well be that this is one of the problems of flight which will never be solved satisfactorily, if only because of the impossibility of finding a mechanical substitute for the instinctive methods of birds in soaring. On the other hand, it does not seem to be out of the practical question to look forward to experiment actually approximating a solution of this most difficult problem of dynamic flight. As a matter of fact, the German experiments have already accomplished a good deal in this direction. They have proved that it is possible, by taking advantage of gusts and varying wind currents, to remain far longer in the air, on a motorless machine, than did the first aeroplane to fly. In fact, it was some considerable time after the first actual flight before an aeroplane actually flew for the space of a quarter of an hour. He would be a bold prophet, therefore, who would venture to lay down definitely and dogmatically that the time will never come when man will be able to imitate the flight of the birds and remain in the air for hours on end without the necessity to use any other power than that supplied by the movement of the upper air itself.

That the aeroplane will ever be able to progress from place to place without actual motive power is, of course, entirely out of the question. Even the large birds, which have been observed to maintain themselves in the air for hours almost without wing movement, are not able to progress in a desired direction without the employment of motive power. The point about bird-flight, however, is that progress can be made with the minimum expenditure of power-effort. In the case of the aeroplane the contrary is the case, inasmuch as propulsion entails the use of the maximum amount of power that can be made available. Therefore, the most we can expect from a solution of the problem of soaring flight is a marked reduction in the power-effort required, and it seems to us that the German demonstrations lead us in that direction. What we should now like to see carried out would be a series of careful experiments with machines similar to those used in the recent demonstrations but equipped with low-powered motors, say of about 4 to 5 h.p. It is more than likely that some rather astonishing results would be obtained. Even if the results were negative in their character we should at least know more about the problem than we do now. If the Air Ministry would actively interest itself in the matter it would encourage research along the lines which are being developed in Germany, with apparently conspicuous success.

The Cross-Channel Air Mails.

It is with considerable satisfaction that we are able to record that as from the 1st inst. the parcels air mail to the Continent has been duplicated. In future there are to be two services daily, instead of one only as hitherto. The mail will be despatched from Croydon at 12.30 p.m., thus enabling parcels to be posted at certain offices in London on the morning of despatch up to the following times: G.P.O., 9.40 a.m.; Lombard Street, 9.10 a.m.; W.C. District Office, 9.55 a.m.; Charing Cross, 10.25 a.m.; S.E. District Office, 9 a.m.; and Croydon Head Post-office, 10.40 a.m. This despatch will also enable parcels to be posted in certain provincial towns up till a later hour overnight than is now possible if connection is to be made with the existing despatch.

A further evidence of advance on the part of the Post Office is to be found in the notices issued from the G.P.O. in regard to speeding up letters by air-routes. Take by way of example the mails to Australia sent on Friday of last week by air-mail service to Paris: these secured connection with the s.s. "Ormonde" at Toulon, while Indian mails sent at the same time connected with the s.s. "Soudan" at Marseilles. While we are still a very long way from the stage of development that will ultimately be reached by these and other air services, we cannot but welcome every evidence, however slight, that the postal authorities are awakening to the possibilities of air transport. Undoubtedly they are so awakening, and what is quite as satisfactory in its way is the evidence of growing popularity of aerial conveyance which is furnished by the necessity which has arisen for the duplication of the cross-Channel parcels service. By inference it would appear that the business community is taking such advantage of the facilities for rapid transport that the service hitherto in being has been found inadequate to the demands made upon it. So far so good, but we look forward

to the time in the very near future when there will be, not two, but twenty British air liners leaving Croydon every day for Paris and beyond.

The Voyage of the "Quest."

It is possible that the voyage of the "Quest," under Sir Ernest Shackleton, may lead to a substantial addition to the sum of knowledge of the conditions obtaining in the upper air. Sir Ernest recently offered his services to the Air Ministry to carry out meteorological observations and to gather topographical information during his forthcoming expedition to the Atlantic, Southern and Indian Oceans. The "Quest" has been furnished with instruments and equipment necessary for carrying out observations, and she has been constituted an official reporting ship to the Meteorological Office. She has also been supplied with photographic apparatus and with kites similar to those employed in the investigation of the upper air over the Atlantic during the voyage of the s.s. "Montcalm" prior to the flight of "R. 34" in 1919. It is further proposed to take records of the temperature and pressure of the upper air by using a seaplane which is to accompany the expedition. As the ship will, among other places, visit the islands of St. Paul's Rocks and Tristan d'Acunha, in the Southern Atlantic, some valuable data should be collected. The first of these groups lies on the route which would probably be followed by aircraft flying *via* the West Coast of Africa to South America. Tristan d'Acunha occupies a position almost midway between South America and South Africa.

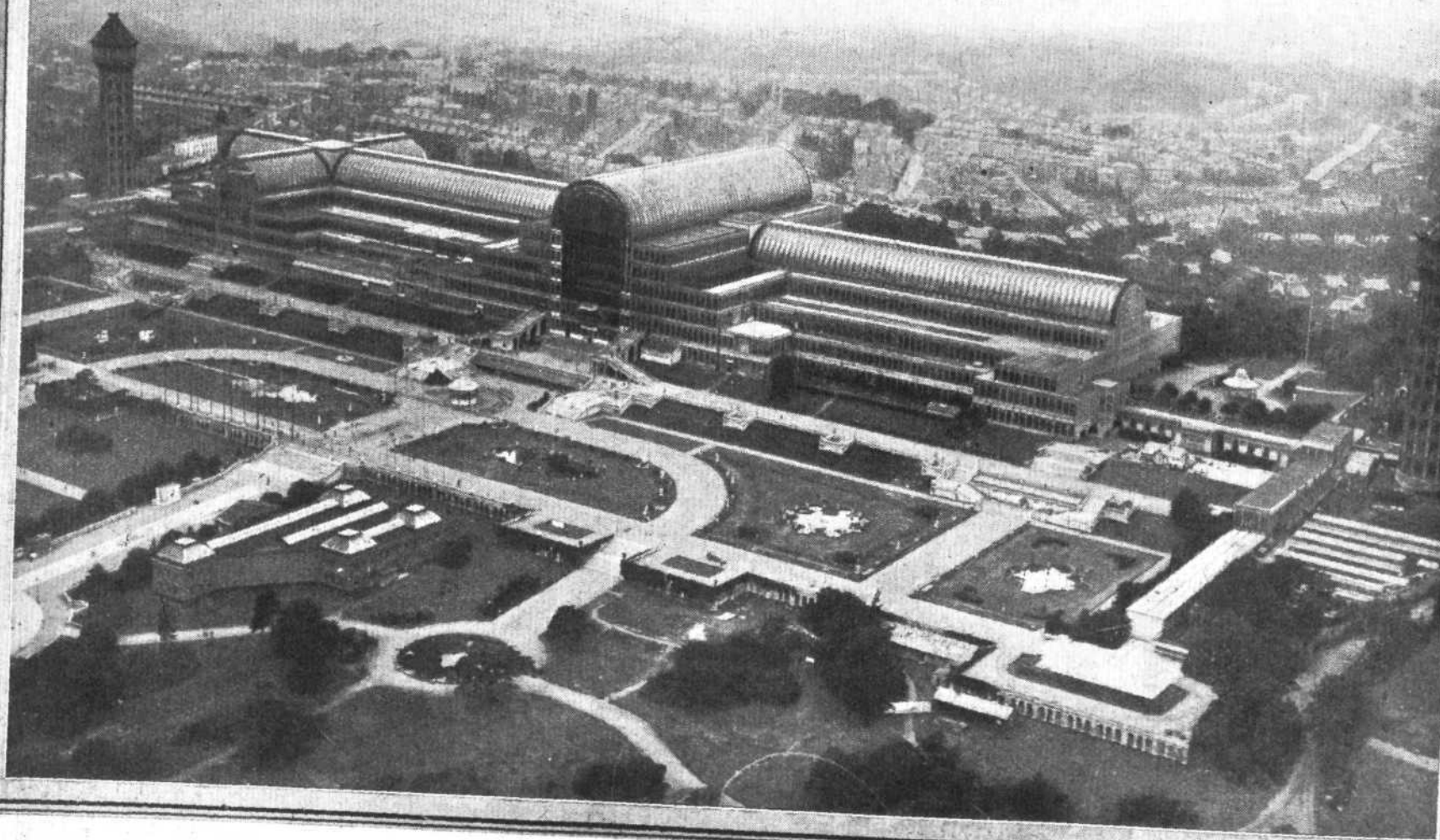
While a good deal can be accomplished by detached expeditions such as that of Sir Ernest Shackleton, what is really wanted is a comprehensive and exhaustive survey of the upper air on the lines we discussed recently, when writing of the proceedings of the International Committee. All knowledge of these conditions must be of great value, but aerial navigation can never come fully into its own until the upper air is as well known and charted as the ocean currents.

International Laws of the Air.

The International Law Association has been holding a series of meetings at the Hague recently, for the discussion of various subjects related to intercourse between nations. How far these discussions are of an official nature, or whether the decisions of the Association have any binding effect on the nations represented, we do not altogether know. As a matter of fact, we believe the discussions are altogether academic and are principally interesting as an indication of the way matters affecting international relations are regarded from the standpoint of the legal mind.

Among other things, the Association has apparently been engaged in the discussion of international aerial law, and has come to the conclusion that the Aerial Convention of 1919 should be ratified by the signatories as soon as possible, and that all the other countries of the world should adhere to it and pass municipal laws accordingly at the earliest possible moment. With this we find ourselves in total agreement. The Convention is now two years old and has not as yet been ratified. As a matter of fact, certain of the signatory nations, Great Britain among the number, have already passed "municipal" laws

SEPTEMBER 8, 1921



LONDON-PARIS, FROM THE AIR, AS SEEN FROM A HANDLEY PAGE MACHINE :
No. 8—The Crystal Palace and District.

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in accordance with the terms of the Convention, but this is not quite the same thing as actual ratification, which renders the Convention binding upon the signatories.

The Association seems to be rather worried about Clause 2 of the Convention, which, it is pointed out, appears to give to each contracting State freedom of passage above its territory by night as well as by day. The Committee on aviation, which has enquired into these matters, desires to amend the clause to read as follows:

Each contracting State undertakes in time of peace to accord freedom of innocent passage by day above its territory to the aircraft of the other contracting States, provided that the conditions laid down in the present Convention are observed.

Regulations made by a contracting State as to the admission over its territory to the aircraft of the other contracting States by day shall be applied without distinction of nationality.

Aerial passage by night is not permitted except by special agreement between the Governments of the contracting States respectively. The agreement shall specify conditions on which flying by night is permitted over the territory of the one contracting State by the nationals of the other contracting State.

We are inclined to agree with this point of view, even though we are extremely anxious that every facility should be given for the development of international air communications. It does not seem to us to be reasonable that, merely because a certain Power may have subscribed to the Convention, it should have the untrammelled right to fly aircraft over the territory of a neighbouring State by night—when it is difficult to identify aircraft—as well as by day. This, as the Committee considers, is a matter for special arrangements rather than prescriptive right by virtue of a general Convention. Obviously, what the Committee has in view is the possibility of making use of night-flying machines for purposes of illegitimate traffic, or even of military surprise, both of which it is very essential to guard against. There ought to be very little difficulty, without hampering legitimate commercial enterprise, in arranging the terms under which aircraft are to be allowed to fly over foreign territory by night, but it seems reasonably clear that they cannot be permitted to do so on the same open terms as they may be allowed during the hours of daylight.

The Aviation Committee of the Association has also concerned itself with the somewhat vexed questions of aerial trespass and damage caused by the passage of aircraft over private property. The Committee is of opinion that it is desirable that the aerial laws regarding these matters should be uniform in all States and should conform to the following principles:—

(1) No action shall lie for trespass or nuisance by reason purely and solely of the flight of any aircraft over any property at a reasonable height.

(2) In the event of any loss or damage whatever to persons or property caused by aircraft, the owner and charterer shall be jointly and severally liable without proof of negligence for such loss or damage, provided that the damage or loss was not caused or contributed to by the negligence of the person by whom the same was suffered, and that the aircraft alleged to be responsible for the damage or loss shall be subject to immediate arrest and detention until such security be given as may be required by the Court.

(3) A final judgment obtained in any Court of a contracting State shall be enforceable in any other contracting State subject to registration in such State.

We concur in these views. If aerial traffic is to be encouraged it is very essential that there should be, as far as possible, a single code of laws governing it. A multiplicity of laws and procedure, with each State endeavouring to control aviation after its own common law provisions, would make for endless confusion, whereas if all start level, as it were, we know exactly where we stand, and if, for instance, the aircraft owner or pilot has complied with the regulations current in Great Britain and knows that these are identical with those of France, he will be saved endless worry and vexation. Particularly in the matter of the law of trespass and damage is it essential that there should be no marked differences between the codes of the various States. It is comparatively easy to start right in this direction, since the questions involved are quite new, and thus capable of adjustment from the beginning. If the various Governments wait until actions have been settled under the common law and numerous precedents have been created, we shall very soon reach a stage in which confusion is worse confounded. We trust, therefore, that the Governments subscribing to the Convention will take serious account of the recommendations of the International Law Association; and translate them into law at the earliest possible moment.

THE LONDON-CONTINENTAL SERVICES

FLIGHTS BETWEEN AUGUST 28 AND SEPTEMBER 3, INCLUSIVE

Route†	No. of flights*	No. of passengers	No. of flights carrying		No. of journeys completed†	Average flying time	Fastest time made by	Type and (in brackets) Number of each type flying
			Mails	Goods				
Croydon-Paris ...	35	166	12	22	32	h. m. 2 33	D.H.18 G-EARO (2h. 15m.)	A.R.1 (1), B. (6), D.H.18 (2), G (5), H.P. (3), Sp. (4), V. (1).
Paris-Croydon ...	37	188	17	31	37	2 50	D.H.18 G-EAWO (2h. 19m.)	A.R.1 (1), B (6), D.H.9 (1), D.H.18 (2), G. (4), H.P. (3), Sp. (5), V. (1).
Croydon-Brussels ...	11	19	5	7	11	2 28	D.H.4 O-BATO (2h. 0m.)	Av. (1), D.H.4 (4), G. (1), W. (1).
Brussels-Croydon ...	10	20	6	6	9	3 21	D.H.4 O-BARI (2h. 36m.)	D.H.4 (4), G. (1)
Croydon-Amsterdam ...	6	7	6	6	6	3 13	Fokker H-NABJ (2h. 48m.)	F. (3).
Amsterdam-Croydon ...	6	21	6	5	6	4 11	Fokker H-NABJ (3h. 24m.)	F. (3).
Totals for week ...	105	421	52	77	101			

* Not including "private" flights.

† Including certain journeys when stops were made en route.

‡ Including certain diverted journeys.

SOARING FLIGHT IN GERMANY

The Rhön Competition

ONE of the results of the prohibition imposed by the Allies upon Germany against building power-driven aeroplanes has been to give a fillip to the resumption of experiments with full-scale gliders. If Germany wished to make full scale experiments this was the only way in which she could do it. That German experimentalists are fully alive to the possibilities of full-scale experiments of this nature is proved by the fact that no less than 45 machines were entered for the Soaring and Gliding Competition which has just been held in the hills of the Rhön district. Organised by the *Südwestgruppe des Deutschen Luftfahrer-Verbandes*, and the *Verband Deutscher Modell-und Gleitflug-Vereine*, and under the patronage of no less an institution than the *Wissenschaftliche Gesellschaft für Luftfahrt*, the response has been extraordinary, and, as already mentioned, no less than 45 machines were entered for the competition. Contrary to expectations, most of the machines entered turned up at Rhön, and a few late comers swelled the list of machines still further.

The Competition was divided into five different categories under the following heads: (1) Great Rhön Soaring Prize (30,000 Mks.) for the greatest duration, a minimum of five minutes being stipulated, and the machine not to alight at a point more than 50 metres (148 ft.) below the starting point; (2) Greatest total duration of flight obtained by any one machine piloted by the same pilot on each occasion, each flight in order to count for this prize having to be of at least 15 seconds' duration (1st Prize 5,000 Mks., 2nd 3,000 Mks. and 3rd 2,000 Mks.); (3) Smallest mean loss of height during a complete flight, each to be of at least one minute duration (1st Prize 5,000 Mks., 2nd 3,000 Mks. and 3rd 2,000 Mks.); (4) Greatest distance flown (Prize amounts same as previous); (5) Prizes to be distributed at discretion of the judges: 25,000 Mks.

The following is a list of the machines entered for the competition:—

No.	Machine entered by	Type*	Span. Ft. In.
11.	Brunswick Landes-Verein ..	M	31 2
2.	Do. ..	B	32 10
3.	Kammermeyer ..	M	39 5
4.	Ferdinand Schulz ..	B	21 0
5.	Akad. Fliegergruppe, Darmstadt ..	M	36 2
6.	Do. ..	M	32 10
7.	Schatzky, Technische Hochschule ..	M	36 2
8.	Hausler ..	B	16 5
9.	Rebmann, Möbius ..	B	24 7
10.	Peter Riedel ..	B	27 7
11.	Katzschke ..	B	24 7

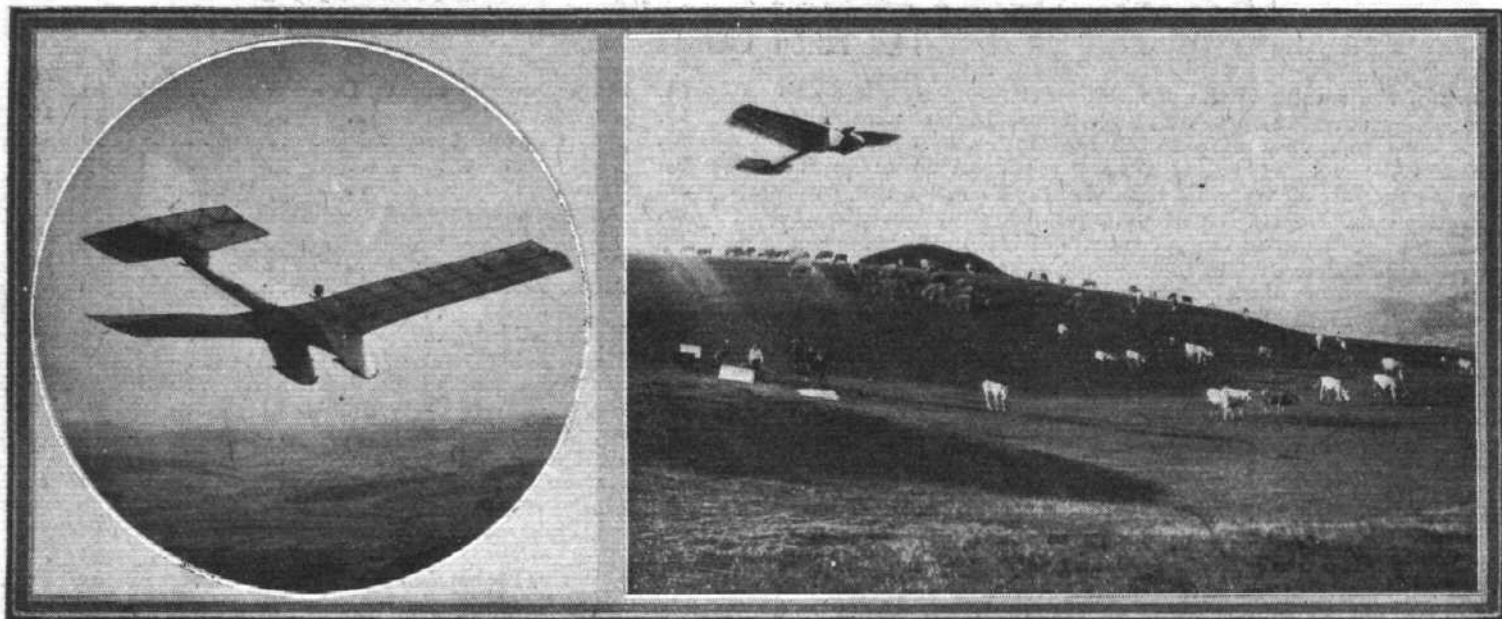
* M=Monoplane; B=Biplane.

12.	Flugtechnische Verein, Dresden ..	B	25 7
13.	Espenlaub ..	M	32 10
14.	Freiherr von Lüttwitz ..	M	36 1
15.	Drude ..	M	29 6
16.	Pobel ..	M	32 10
17.	Gothaer Gleit-u. Segelflugverein ..	M	35 10
18.	Do. ..	B	22 4
19.	Fr. Richter ..	B	32 10
20.	Alfred Zeise ..	M	39 5
21.	Do. ..	M	41 1
22.	Fritz Heil ..	B	19 5
23.	Karl Bacher ..	M	26 3
24.	Flugtechnische Verein, Darmstadt ..	E	23 0
25.	Bavarian Aero Club, Munich ..	M	26 2
26.	Fr. Budig ..	B	21 4
27.	Karl Rath ..	M	42 8
28.	Gustav Raupach ..	M	32 10
29.	Flugwissenschaftliche Verein Aachen ..	M	30 6
30.	Aerodynamische Institut, Aachen ..	M	31 3
31.	Do. ..	M	31 3
32.	Tiroler Fliegerverband ..	M	42 8
33.	Konrad Seitz ..	M	27 3
34.	Weltensegler Gesellschaft ..	M	52 6
35.	Segelflugzeugwerke, Baden-Baden ..	M	52 6
36.	Do. ..	M	46 0
37.	Do. ..	M	46 0
38.	Do. ..	M	49 3
39.	W. Pelzner ..	B	17 8
40.	Nordbayer. Luftfahrtverband ..	B	19 5
41.	Do. ..	B	20 4
42.	Do. ..	B	21 3
43.	Flugtechnische Verein, Stuttgart ..	M	30 10
44.	Fritz Schweizer ..	M	26 3
45.	Akademische Fliegergruppe, Hannover, A. Pröll ..	M	42 0

To go into details regarding the various flights made would occupy more space than is available for the purpose, but a few words regarding the manner of starting the gliders may be of interest. Generally speaking, the procedure was, we learn from Mr. Handley Page, who paid a visit to the Rhön district during the competition, that two men are posted at the wing tips of the machine. Two others hold a long rope passing over notches in the undercarriage or some other suitable part of the machine. This long rope has incorporated in it long pieces of rubber shock absorbers. Before the start these two men walk forward and somewhat outwards, as far as the rope and rubber cords will allow. Then on the word go from the pilot the two men holding the wing tips let go and the two on the rope start running forward down the hill.



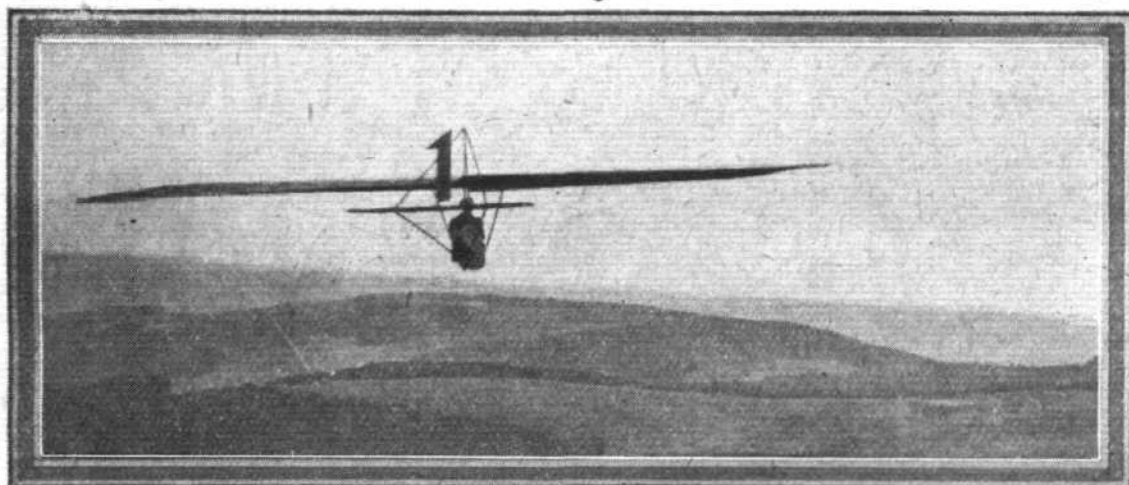
THE RHÖN SOARING COMPETITION : The Aachen Glider in Flight. This photograph gives a good idea of the nature of the country over which these gliding and soaring flights are being made.



THE RHÖN SOARING COMPETITION : Two views of the Aachen glider, which did so well in the turning competition. The attitude and indifference of the cattle indicate that the machine has no engine.

In this manner a form of catapult is formed which accelerates the machine very quickly, and in a few yards it is up to flying speed and in the air, when, as it passes the two men attending to the rope, this falls out of the notches and is left behind. Owing to the light wing loading (according to Mr. Handley Page the average is somewhere about 14 lb.)

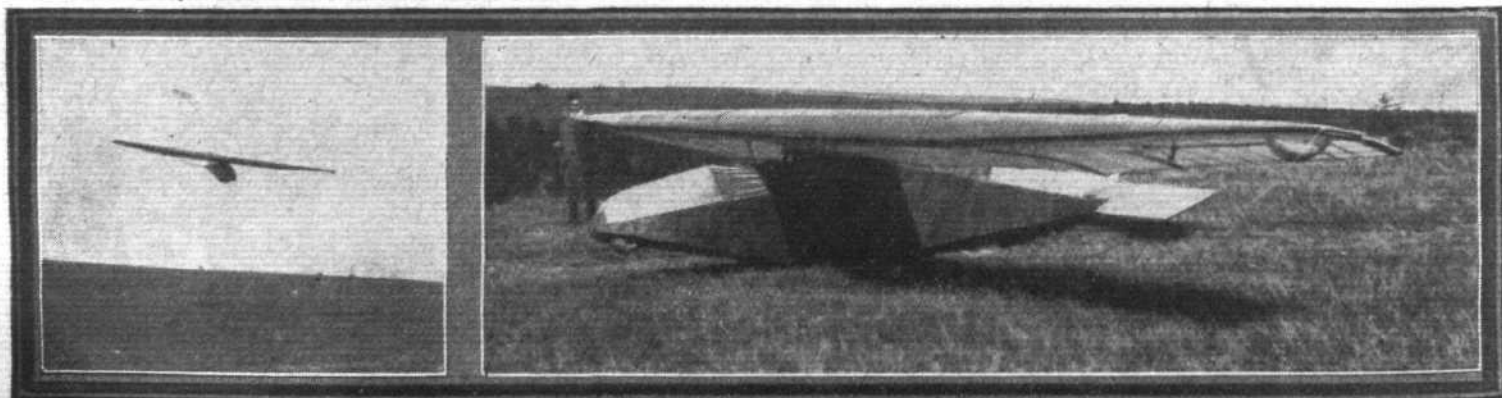
there were several instances of machines reaching heights considerably above their starting point. Thus Klemperer, on the Aachen monoplane shown in some of the accompanying photographs, made a very long flight (after the close of the competition), during which he reached a height estimated as being at least 300 ft. above his starting point. This extra-



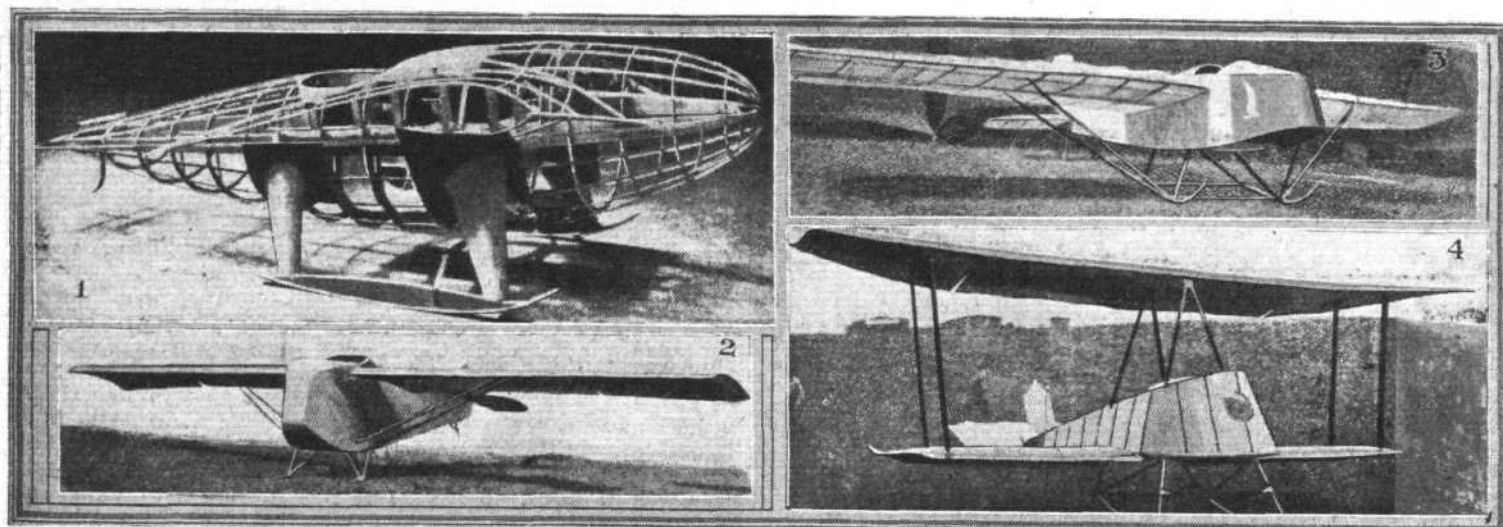
The Rhön Soaring Competition: The Munich glider, which covered a distance of over 2½ miles and remained in the air for over five minutes.

sq. ft.) the machines get off very quickly into the wind, and then comes the glide during which a skilful pilot takes advantage of every gust to keep the machine up or even to rise slightly. The method appears to be that the pilot, when a gust strikes the machine, elevates as much as he thinks the machine will stand, and then, when the gust is dying down, he flattens out and continues the glide. In this manner

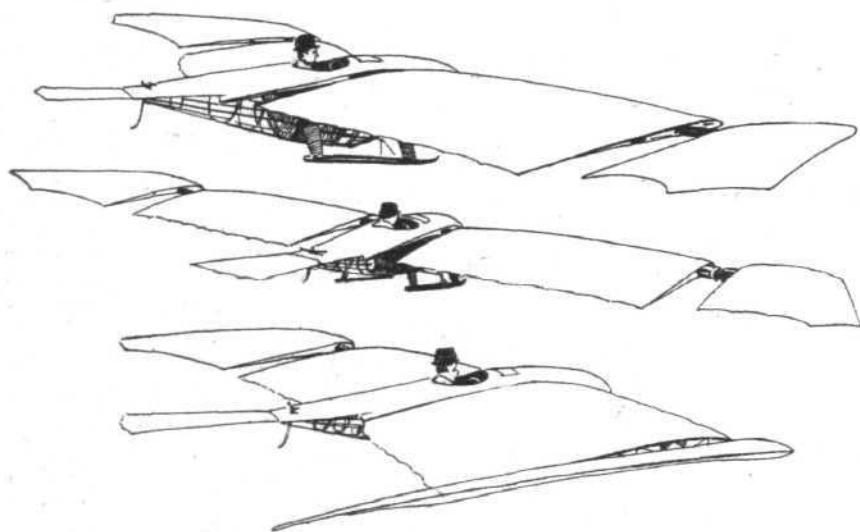
ordinary flight lasted for just over 13 minutes, and the approximate flight path is shown in the accompanying sketch map, which we reproduce by courtesy of *Flugsport*. It will be seen that he described figures-of-eight, did sharp turns, and generally behaved more as if upon a power-driven aeroplane than using a glider. His highest altitude was reached about six minutes after the start. Another



THE RHÖN SOARING COMPETITION: Two views of the Hannover glider. This machine has footballs instead of wheels with pneumatic tyres—two under the body, one in the nose, and one under each wing-tip.

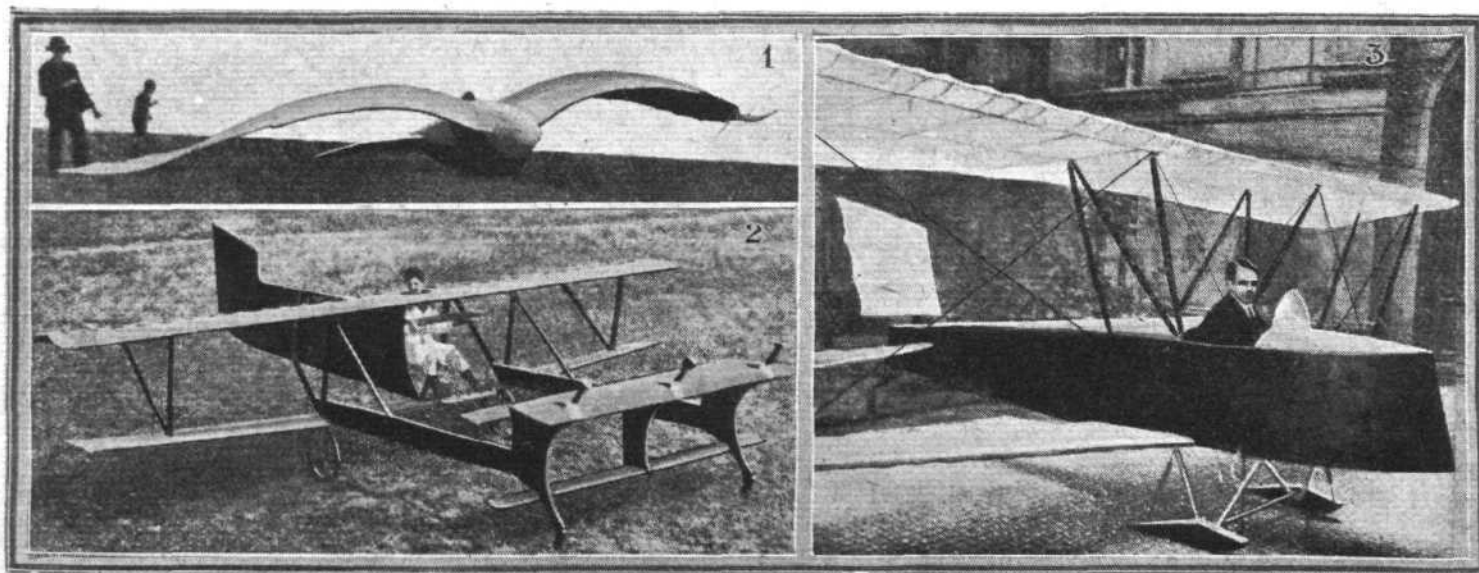
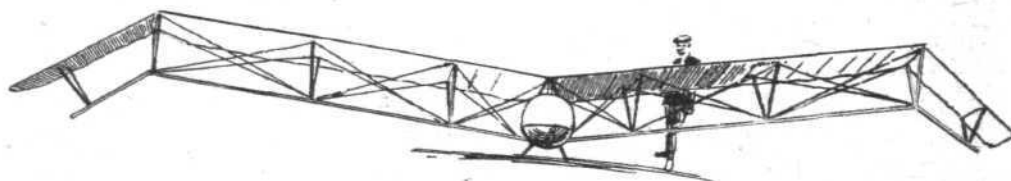


THE RHÖN SOARING COMPETITION: (1) Fuselage of the Zeise No. 3. (2) The Gotha biplane. (3) The Stuttgart monoplane. (4) The Gotha monoplane.



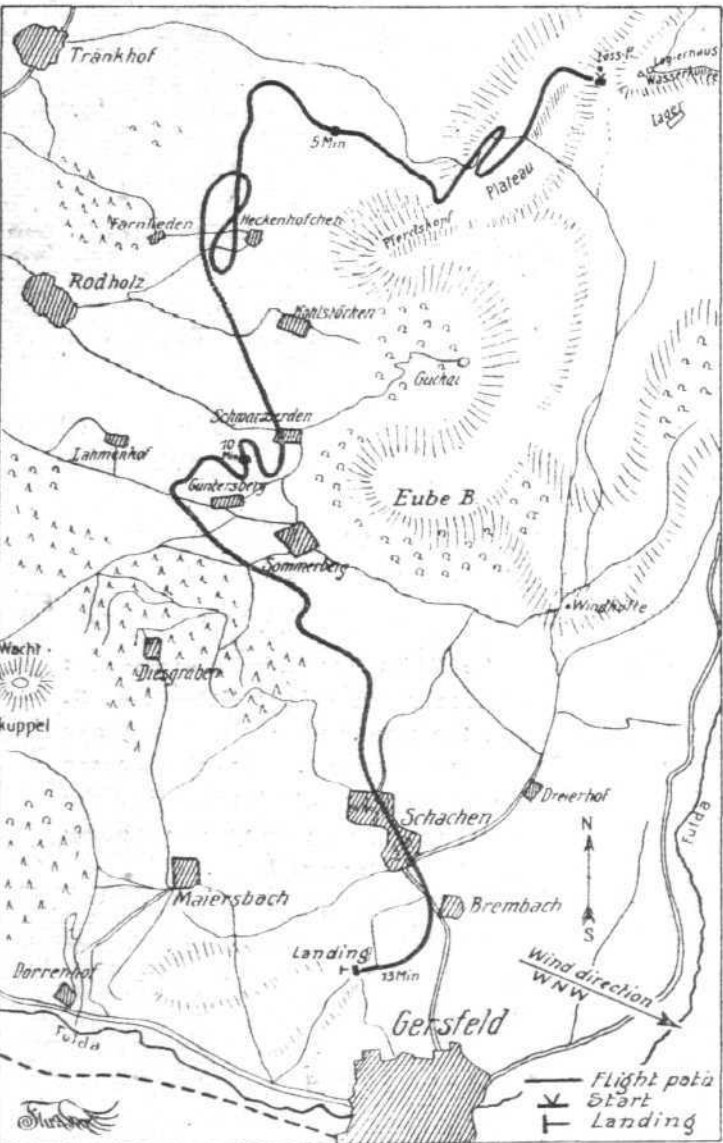
The Rhön Soaring Competition: Three views of the Zeise No. 3. In the upper view the wings are sloped forward. In the centre view they are straight, and in the lower diagram they are shown swept back.

The Rhön Soaring Competition: The series machine of the Segelflugzeug Werke Baden-Baden. Note the unusual arrangement of the wing-tips.



THE RHÖN SOARING COMPETITION: (1) Freiherr von Lüttwitz's monoplane. (2) The Budig biplane. (3) The Richter biplane.

thing which this map brings out very clearly is the manner in which Klemperer followed the valleys and took advantage of the gusts, up-currents, etc., which were caused by the nature of the country. It will be noticed that during the first part of the flight, when he had the wind against him, he



made relatively small headway, although attaining a good height. Then, as he turned across the wind, he gained speed, and the last half or so of the flight, which was down wind more or less, was covered in three minutes. Altogether, this is one of the most interesting flights ever made by man,

the moment of writing we are not quite clear what happened, but it appears that, after an excellent start, and after having been in the air for slightly over a minute, the machine was seen to swerve to the right and it then got into a nose dive and crashed, the pilot dying from his injuries later. Apart from this regrettable mishap the competition was without serious accidents, although minor breakages were frequent enough, as was to be expected from machines so lightly built as these gliders must necessarily be.

The prizes in Class (1) (Great Rhön Soaring Prize) were not awarded.

The greatest total duration of flight obtained was that of Pelzner, who made no less than 62 flights, of which 57 were on the Pelzner biplane and the other 5 on the North-Bavarian Aviation Society (No. 40) biplane. Pelzner's aggregate on the two machines amounted to about 36 mins. 40 secs. and won for him the 1st prize of 5,000 Mks. in Class (2). Second prize in this class was won by Koller on the Bavarian Aero Club of Munich's monoplane machine. Koller's total time was 31 mins. 36 secs., but this total was obtained in 25 flights, so that on an average Koller's flights must have been close on twice the duration of Pelzner's. The longest of them was of slightly over five minutes' duration, and the distance covered was 4,080 metres (a little over 2½ miles). In this flight Koller made a complete circuit of 360 degrees. Third prize was awarded to Klemperer on the Aachen monoplanes for a total of 15 flights with a duration of 23 mins. 25 secs.

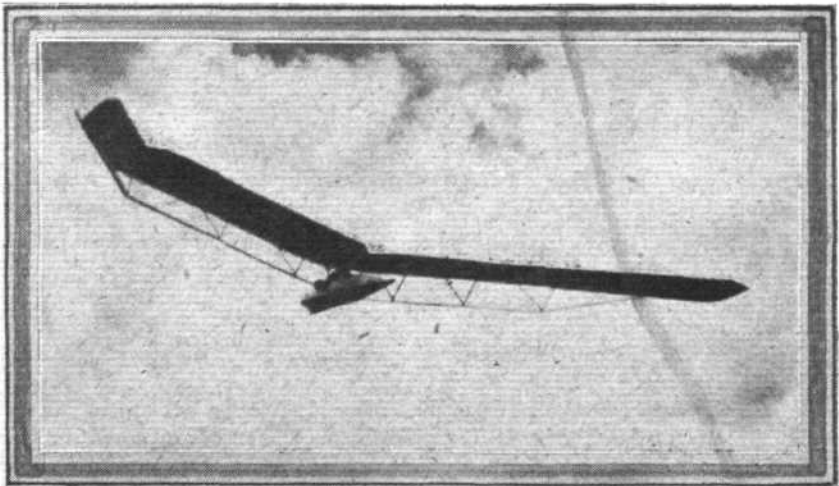
In Class (3) a slight re-arrangement of the prizes was made, first and second being made up to an equal amount of 4,000 Mks. each, and third prize 2,000 Mks. First and second were awarded to Koller and Klemperer respectively, it being thought that their performances were both of equal merit. Third prize was given to Martens for his performance on the Hannover monoplane.

In Class (4) (greatest distance) first prize was won by Koller on the Munich monoplane, second prize by Martens on the Hannover, and third prize by Klemperer on the Aachen. In this connection it should be pointed out that Klemperer's marvellous flight shown in the accompanying sketch map was made after the close of the competition and therefore does not count for the prizes. It would appear that in order to get the best possible results during the competition, the pilots should have an opportunity of practising for a month or so beforehand so as to get experience. The very fact that some of the best performances were put up after the close of the competition proves this. It is, of course, natural that the personal element enters into the equation to a very great extent, and, as suitable country is not to be found everywhere, the problem of previous practice is often a matter of difficulty. There is little doubt that next year, if the competition is repeated, as we trust it will be, very much better results will be obtained. It has been a matter of some disappointment that the Great Rhön Prize was not awarded, and the opinion seems to prevail in "Soaring Circles" that the rules should be modified, not necessarily in order to make the competition easier, but so as to make it more useful.

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The Rhön Soaring Competition:
View of the "Weltensegler" (world-soarer) in flight. A few minutes after this photograph was taken the machine did a right-hand turn, got into a nose-dive, and crashed, the pilot (Willy Leusch) dying from his injuries later.

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and is, in a small way, an indication of what, with a little practice, we may hope to do in the way of powerless flight. As regards the competition itself many scores of flights were made, and there is only one serious accident to report. This happened to Willy Leusch, on the "Weltensegler." At

The Machines

Very little information is available as regards the details of the competing machines. Generally speaking, however, the designs were sound, although, as was inevitable in a competition of this nature, some freaks were to be found

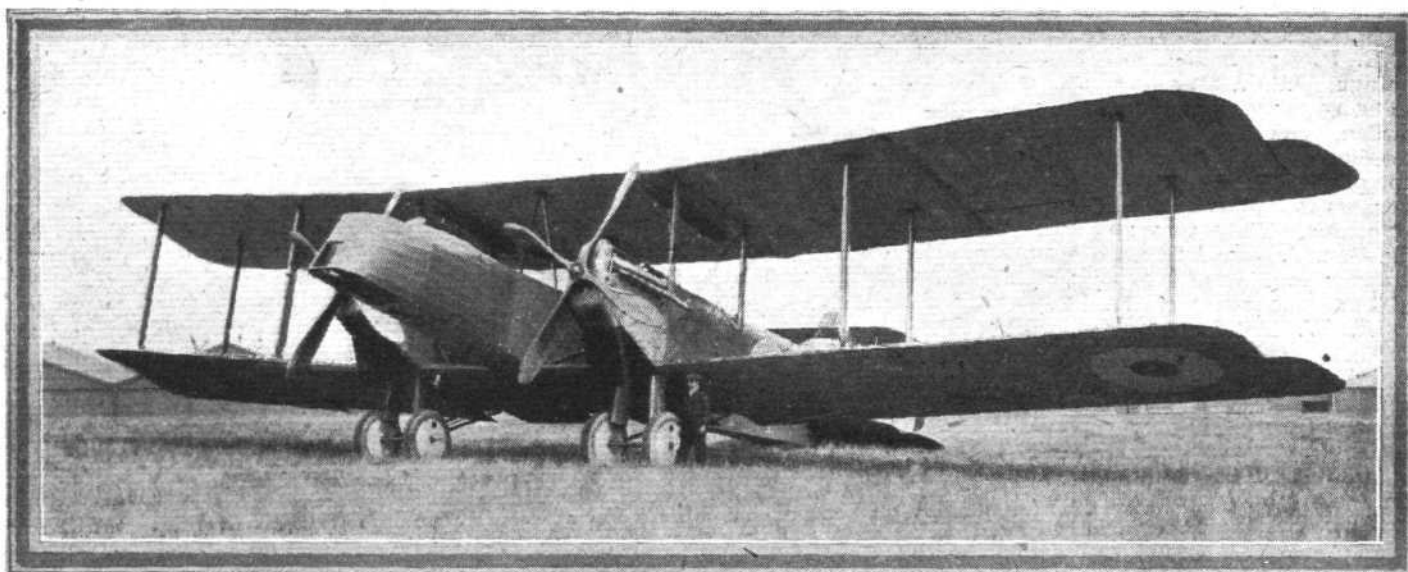
among them. The "Weltensegler" on which Leusch met his death had no tail of any description; its stability being attained by a pronounced sweep-back and control by means of movable wing tips. It would appear that possibly one of these gave way and that this was the cause of the accident. As our illustrations will show, those machines which did best in the competition were of fairly orthodox design, one of the most interesting being the Hannover, in which there is an ordinary rectangular section fuselage with a monoplane cantilever wing and orthodox tail planes. One of the features of this machine is the use of footballs in place of wheels with pneumatic tyres. We understand from Mr. Handley Page that these were a great success, giving ample shock-absorbing and having less frictional resistance on the grass than the skids with which the majority of machines were provided.

The Munich monoplane on which Koller did such good work would appear to be the essence of simplicity. There are three necessary elements in a glider: the wing, the tail, and the pilot's seat. In the Munich these three are of the simplest possible form and are connected by a few struts giving perfect triangulation. A feature of this machine

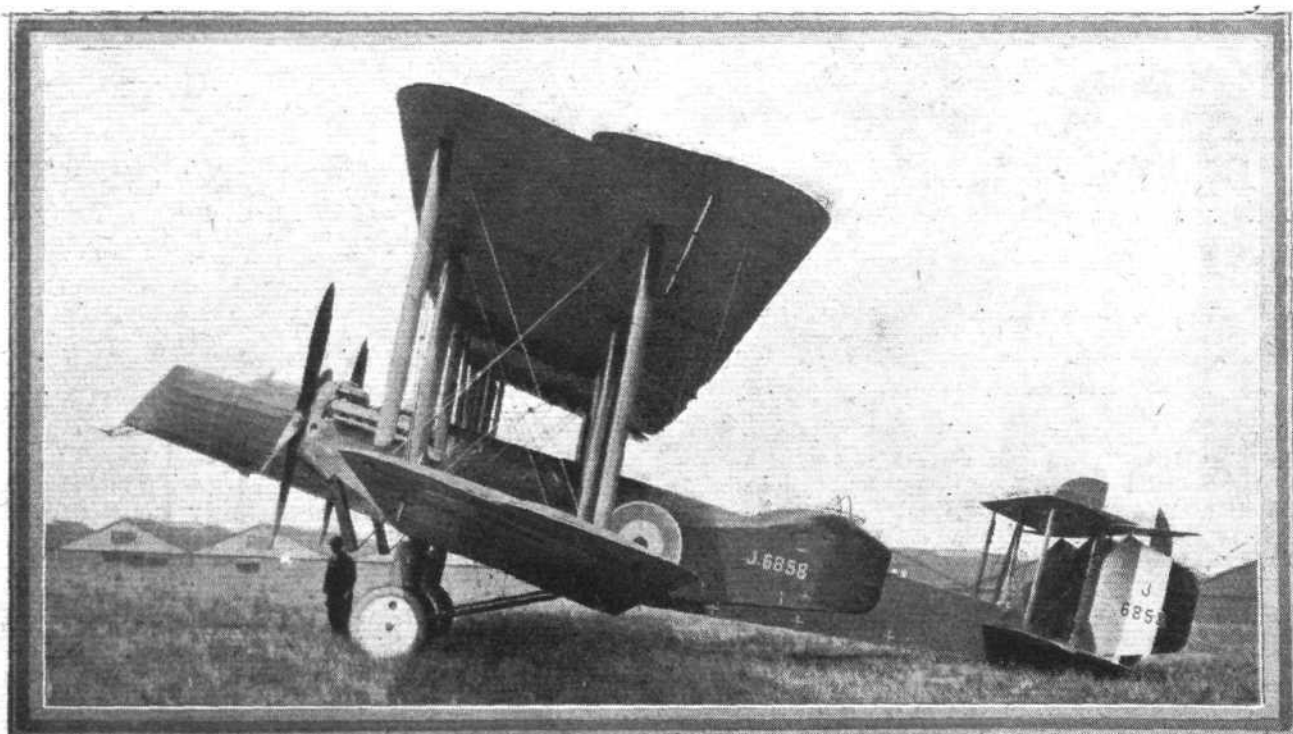
is that there is no elevator. The tail consists of a fixed tail plane and a rudder. The wings have their entire trailing edge hinged, a side-to-side movement of the control stick giving a differential movement to the two halves of the trailing edge for *aileron* control, while a fore and aft movement pulls down or elevates the entire trailing edge, thus causing it to perform the function of an elevator. The system appears to have worked well, and altogether this glider is very taking in its almost crudely elementary simplicity.

The Aachen monoplanes on which Klemperer did his excellent work are well shown in our photographs, and are similar to the machine which did so well in last year's competition. Some refinements have been incorporated, notably as regards the placing of the pilot. This year's models retain the "trousered" undercarriage which characterised the previous machine and the curved skids appear to have worked well. The problem of skids of suitable shape is less simple than one would imagine, and on this subject we may have something to say later. For the present we must confine ourselves to congratulating the Rhön competitors on their achievement and expressing the hope that next year even better results may be obtained.

THE ARMSTRONG-SIDDELEY "SINAIA" (SIDDELEY "TIGER" ENGINES)



Three-quarter front view.



Side view. These photographs are published by permission of the Air Ministry, but no technical details may be given.

HONOURING THE DEAD

Funeral of "R.38" Victims

Nor the least sad feature of the terrible disaster which overtook the crew of "R.38" is the difficulty of recovering the bodies from the wreck, and the consequent impossibility of a common funeral for all the British dead. While all the Americans have been recovered, there are, at the time of writing these lines, still five British bodies which have not been found. Some have been sent away for burial elsewhere at the request of relatives, and consequently the solemn ceremony which took place at Hull on September 2 was to do the last honour to five only of those who perished in the disaster.

When the funeral cortege formed outside the mortuary, it was to follow two motor tenders drawing aircraft trailers which served as biers for the coffins, of which three were placed on the first trailer and two on the second. With the exception of a few motors conveying officials, the cortege was a procession on foot, and throughout the last journey from the mortuary to the cemetery, some two miles away, the streets were lined with the townspeople of Hull, come to do last honours to those whom they had seen perish in the disaster of August 24. Those who were borne to the grave on September 2, were:—Air-Commodore E. M. Maitland, C.M.G., D.S.O., A.F.C.; Constructor-Commander C. I. R. Campbell, O.B.E., R.N.; Flight-Lieut. I. C. Little, Flight-Lieut. R. S. Montagu, D.S.C., and Leading Aircraftsman J. W. Wilson. The firing party, comprising a hundred men from the base at Howden, took their station ahead with reversed arms, and immediately behind them followed the R.A.F. central band, who played Chopin's "Marche Funebre." The personal mourners followed immediately behind the trailers carrying the coffins. They were:—For Air-Commodore Maitland: Brig.-Gen. F. Gore Anley and Mrs. Gore Anley, Maj. G. Cecil Whitaker and Mrs. Whitaker, the Hon. Claud Brabazon and Mrs. Brabazon, the Hon. Lady Miller of Manderston, and Mr. A. W. Maitland (uncle). For Flight-Lieut. Little: Mrs. Little (widow), Miss Little (sister), Mr. James Little (father), and Dr. Little (brother). For Constructor-Commander Campbell: Mrs. C. I. R. Campbell (widow), Mr. A. J. O. Campbell (brother), Mrs. W. H. Gover (sister-in-law), Judge Fossett Lock (an old friend of the family), and Mr. Williams. For Flight-Lieut. R. S. Montagu: Mr. and Mrs. Montagu (parents). For Leading Aircraftsman Wilson: Mrs. Martha Lambert (sister) and Mr. Lambert (brother-in-law), Mr. R. N. Wilson (brother), and Mr. and Mrs. Allison (uncle and aunt).

Wreaths covered the coffins to such an extent as almost to hide the Union Jacks in which these were wrapped, many personal ones being among them, but also a very great number from people who wished in this way to show their appreciation and respect to those who had died at their post in the course of their duty.

As they met their death together, so the mortal remains of the five officers and men were laid in a common grave without distinction of rank, and that grave has been made of such dimensions that it can be reopened from time to time as their comrades come to join them. Arrived at the cemetery, the procession was met by the Chaplain-in-Chief of the R.A.F., the Rev. H. D. L. Viener, and the Rev. W. T. Rees, Chaplain at Howden, who together conducted the brief service. A brief pause followed the service, then a sharp command rang out, and three volleys were fired by the firing party. Then, as the soldiers presented arms and fixed bayonets, the buglers of the band sounded the Last Post, all ranks standing at the salute. The ceremony is one that will live for ever in the memory of those who attended it, and, in its simplicity, was

symbolical of those whose remains it was intended to honour.

America's Dead

The bodies of the American officers and men who lost their lives in "R.38" were conveyed to Devonport Dockyard by a train leaving Hull at 6.30 p.m. on September 6, and arriving at its destination by 10 a.m. on the following day. A Royal Air Force guard of honour escorted the bodies to Devonport, where they were met by a Naval Guard, whose duty it was to see to the embarkation on board the light cruiser, H.M.S. "Dauntless," which had been placed at the disposal of the American Government by the Prime Minister. The "Dauntless" left Devonport almost at the same time as the Memorial Service was being held at Westminster Abbey.

Lieut.-Commander R. E. Byrd, U.S.N. has sent to the Lord Mayor of Hull a letter in which he says:—"We will carry over to America with us as the one pleasant recollection of our common tragedy, the thought of the wonderful sympathy and hospitality we have received from the people in and about Hull. It seems to me that our shared sorrow, the aftermath of which we have shouldered together, has brought us to a closer understanding of one another, and I am sure that history will never change the gratitude that my country will feel towards Hull for its part in this sad-occurrence."

Memorial Service in Westminster Abbey

In order to commemorate the memory of those who perished in "R.38," a Memorial Service was held in Westminster Abbey on Wednesday, September 7, at 12.30 p.m.

The Service was conducted by The Very Rev. the Dean of Westminster, Bishop H. E. Ryle, C.V.O., D.D., assisted by the Abbey Staff. The Chaplain-in-Chief of the Royal Air Force, Rev. H. D. L. Viener, C.B.E., M.A., delivered a short Address, and the Service was rendered by the Abbey Choir.

H.M. the King, Chief of the Royal Air Force, was represented by Air-Marshal Sir Hugh Trenchard, Bart., K.C.B., D.S.O., A.D.C., Chief of the Air Staff, H.M. Queen Alexandra by Col. Sir A. Davidson, K.C.B., K.C.V.O., and the Duke of York by Wing-Commander Louis Greig, M.V.O. The Secretary of State for Air was represented by Group-Capt. A. J. L. Scott, C.B., M.C., A.F.C. Lord Gorell, C.B.E., M.C., Under-Secretary of State for Air, and other representatives of the Air Council and Air Ministry attended. The American Ambassador, the Rt. Rev. Bishop of Connecticut, and Vice-Admiral A. P. Niblack, U.S.N., Commanding U.S. Naval Forces in European waters, were present, as well as the American Consul-General (Mr. Robert Skinner), Rear-Admiral N. C. Twining, U.S.N., the Naval and Military Attachés and Members of the Embassy Staff. The Royal Air Force was represented by Air Vice-Marshal Sir John Salmond, K.C.B., C.M.G., C.V.O., D.S.O. (Air Officer Commanding, Inland Area), Air Vice-Marshal A. V. Vyvyan, C.B., D.S.O. (Air Officer Commanding, Coastal Area) and a detachment of officers and men. The United States Navy sent detachments from Howden Airship Base and from the U.S. Battleship *Utah*. Among others attending were representatives of the Prime Minister, the Lord Chancellor, the Lord Privy Seal, of other Members of the Cabinet and Members of the Board of Admiralty and Army Council. The Lord Mayors of London and Hull, the Mayors of Westminster and Bedford, and the High Commissioners for the Dominions or their representatives were present, and the Royal Aeronautical Society, the Royal Aero Club, the Society of British Aircraft Constructors, the Imperial Air Fleet Committee, the Air League and the principal scientific and engineering societies also sent representatives.

Good Work by U.S. Flying Boats

THE first official report covering commercial flying operations to and from New York, just forwarded to the Bureau of Aeronautics, Navy Department, by the Aeromarine Airways, shows that the first three months of operations 2,007 passengers were carried 28,171 miles in the air by four flying boats without a single injury. These figures are exclusive of crews, each boat carrying a pilot and mechanic every flight.

The report covers the first quarter of the sight-seeing service around New York City, and services to and from nearby seashore resorts. The only mishap recorded in the report occurred on Sunday, August 7, when the flying boat *Ambassador* made a forced landing with six passengers in the violent storm while flying from Atlantic City to New York.

It points out that the landing was safely made alongside a yacht belonging to the president of the Company, and that the passengers and crew were safely transferred, and the flying boat successfully towed back to the hangar.

The record of the four flying boats in the first three months' operations is as follows:—

Flying Boat.	Hours in air.	Mileage flown.	Passengers carried.
<i>Ambassador</i> ..	142.25	10,088	597
<i>Waldorf</i> ..	98.30	6,983	458
<i>Biltmore</i> ..	62.05	4,388	342
<i>Pennsylvania</i> ..	99.50	6,712	662
Totals ..	402.10	28,171	2,007

LONDON TERMINAL AERODROME

Monday Evening, September 5

THE number of passengers through the Customs' this week has amounted to 415, which does not show too great a falling off when compared with previous weekly totals this summer. What is most noticeable, however, is the big influx of passengers from the continent. Last week the total for all lines—British, French, Belgian and Dutch—outwards from Croydon was only 188, while the inward passengers totalled 227.

The explanation has been advanced that the flood of American tourists is now flowing in the direction of America, and that although they are still coming from the continent by air to London and thence to the American boats, few are travelling to the continent. There is probably a great deal to be said for this argument, as the Amsterdam and Brussels routes, which do not carry many Americans, have hardly been affected.

The K.L.M. have carried during the week 28 passengers, which is about their usual number; but the passenger traffic is very jerky and unreliable.

Whether this London-Amsterdam traffic could be built up or not remains to be seen. Light should be thrown on the problem when the rumoured new companies commence operations. As things are at present, there is certainly not enough traffic in goods and passengers for more than one company; while it is doubtful if a single company, operating with big machines, could get full loads.

Plans for Winter Flying

WHEN the change from summer-time to Greenwich mean time takes place, the K.L.M. propose to alter the time of their services to 10.30 a.m. in each direction, and if—through weather or other conditions—the start is delayed beyond 1 p.m., to cancel the flight for the day. This rule is, I understand, hard-and-fast, and is based apparently on the slow speed of the Fokker monoplanes against a head-wind, and also on account of the mists which creep over the lowlands of Holland at quite an early hour in the afternoon. There are, however, in the light of experience, shown to be many days when, with a following wind, and meteorological conditions against the formation of mist, it would be perfectly safe to leave one of the terminal aerodromes after 1 p.m., and when the winter service is actually working this will no doubt be done.

The log-books of the Fokker monoplanes show a peculiar state of affairs. On one day there will be an entry showing the pilot as British, and the page will bear the British Customs' stamp. On another occasion the pilot will be Dutch, and then there will come an entry—when the machine has been on the Amsterdam-Hamburg route—where the pilot is shown to be a German, and the page is stamped with the German Customs' stamp.

I do not think that this could happen on any other air line, and it is due to the fact that the Dutch company have had to get their pilots—with one or two exceptions—outside their own country, and thus there are British, Dutch and German pilots all flying the same machine.

The Guarding of the 'Drome

THE police who have guarded the aerodrome, regulated the crowds during week-ends, and grown vegetables in their spare time, have now been replaced by a number of police pensioners. The general cry for economy has apparently been heard in the Air Ministry, for it is stated that there will be a considerable saving on this item. When the police were on guard at the 'drome quarters had to be found for them, and all expenses in connection with them had to be paid by the Civil Department of the Air Ministry. This came to a formidable sum each year. With the new arrangement, however, the police pensioners sleep at home and come on duty like any other employé of the aerodrome, no quarters having to be found for them—which, of course, means a considerable saving.

The Instone Air Line have carried less than 100 passenger this week, which is a big drop from the 180 of a few weeks ago.

The Vickers—"Vimy" has had a change of engines over the week-end, and is being tested today before going on the Paris service tomorrow.

Mr. Barnard had a nasty accident with his motor-bicycle and side-car on Tuesday evening. He was attempting to pass a steam-lorry on the road from the aerodrome to Croydon, and, just as he drew level with the lorry, it began to turn into a side entry. Mr. Barnard accelerated in order to pass in front of it, but was too late, and his motor-cycle caught the front wheel of the lorry.

Both Mr. Barnard and Mr. Grace, the A.I.D. Inspector on the aerodrome—who was in the side-car—were very badly injured, and Mr. Barnard's dog "Brown" had its front legs broken. At the time of writing both Mr. Barnard and Mr. Grace, who are in the Croydon General Hospital, are progressing as well as can be expected. During Mr. Barnard's absence, Mr. Game is in charge of the aerodrome end of the Instone Air Line.

Improved Facilities for Passengers

ANOTHER large stretch of tarmac is being laid down in the Customs enclosure where passengers embark in the machines. This should go a long way towards keeping the feet of winter passengers dry. Up to the present the method of embarking passengers has been very amateurish, and not worthy of the world's finest air-port. Machines have been drawing up anywhere where there was room, and passengers have had to "wade" out, often through long wet grass, to them.

Grands Express are gradually enlarging their fleet of "Goliaths." New machines have been seen at Croydon lately, and Mr. Bouderie tells me that his company have now ten "Goliaths" on the service. There is probably no other fleet of "air expresses" in the world with the same amount of accommodation.

The Grands Express total of passengers for last week was only 98. On Friday, in fact, one of the Goliaths left Croydon without a single passenger—an event, so Mr. Bouderie informs me, which has not occurred before since March 1 last.

On Wednesday, Maj. De Havilland left Croydon en route for Madrid on a Bristol aeroplane with the Spanish military "rings" as well as the international registration mark painted on wings and fuselage. It is understood that the machine is for use against the Moors in Morocco.

More Work for Pilots

THE following day, Thursday, Mr. Leslie Tait-Cox left for Madrid on a Bristol "tourer" with Spanish registration marks. He was extremely dubious as to his chances of getting beyond the Spanish frontier aerodrome at San Sebastian, as he believed that the Spanish military authorities were requisitioning all Spanish civil machines.

Mr. Tait-Cox tells me that the firm of Tait-Cox and James, test pilots, are extremely busy, and could find work for half-a-dozen pilots. It is clear that the Bristol Aeroplane Company are having a difficulty in finding pilots to fly their "tourers" to Spain, as they had evidently made it worth while for Mr. Tait-Cox to desert his business here and fly one of these machines to Madrid. The fact that Maj. De Havilland had come from Spain to collect the other machine also points to a shortage of good pilots.

Messageries Aériennes have carried 66 passengers between London and Paris during the week, and are, in common with the other air-lines, finding it difficult to get passengers to Paris. They cancelled their Sunday service yesterday, owing to there being no passengers booked.

The accident to the S.N.E.T.A. "Goliath" last week has not affected the bookings to Brussels. There have been 33 passengers between London and Brussels this week, which is quite up to—if not above—the average on this route. There was a parcel for Brussels this morning which, according to the consignment note, contained two brace of partridges. Judging by the odour escaping from the parcel, these should be in ideal condition for the epicure if the pilot makes an extra-rapid journey; otherwise—!

More Handley Page Festivities

THE life of anyone on the staff of the Handley Page Transport appears to be one long round of gaiety. Following on the visit to the Duke of York's Theatre, and the outing to Brighton, Mr. Handley Page invited them to his house at Stanmore on Sunday. The party arrived there about 2.30 p.m., and spent the afternoon strenuously, with tennis, raquets and cricket-bats. Tea was served on the lawns, and everyone concerned had a very enjoyable time. The number of passengers carried by this pioneer air line is creeping up, and last week the total was 89. The W. 8 has arrived at Croydon, and is undergoing extensive tests before being placed on the service.

Mr. Hey, the meteorologist-in-charge, is having a busy time, several of his staff being away on leave. These have been replaced by men sent to Croydon to train as technical meteorological assistants; so that, in addition to being short-handed, there is more work to do.

The Bandon Hill Cricket Club sent a strong team to the aerodrome yesterday, and avenged in no uncertain way their previous defeat earlier in the season.

Capt. Muir, of the Surrey Flying Services, had a busy week-end with joy-riders, quite good business being done.

THE INTERNATIONAL MICHELIN CUP

Gained by Poirée on a Caudron

As briefly announced in our issue of last week, Poirée on a Caudron biplane has succeeded in putting up a good performance for the Coupe Michelin. It is scarcely correct to say that he has won it, as there is still time for some other competitor to improve on Poirée's performance. The rules of the competition stipulate that the circuit of France shall be covered in 15 stages, with compulsory landings at each of the following aerodromes: Versailles (any one of the various aerodromes situated in the Versailles district), Amiens, Mourmelon-le-Grand, Saint-Dizier, Dijon, Joigny, Beaune, Bron (Lyon), Nîmes, Pau, Merignac (Bordeaux), Romorantin, Angers, Evreux, St.-Inglevert (Calais), Versailles. Competitors are allowed to start from either one of these aerodromes, and apparently the only stipulation is that a "commercial" speed of at least 75 kilometers per hour shall be maintained. Intermediate landings are permitted. The full rules of the competition appeared in FLIGHT on February 17.

The last holder of the Cup was Eugene Gilbert, who covered the circuit of France (3,000 kilometers) in 39 hrs. 35 mins. 42 secs. in 1914 (June 8-9) on a Morane-Saulnier monoplane, 80 h.p. le Rhône engine. The turning-points of that circuit were somewhat different, although the total distance remains the same. The War prevented the competition for the next few years, and post-War conditions have been responsible for the non-holding of it until this year.

Bossoutrot's Attempt

The first man to make the attempt was Bossoutrot, the famous Farman pilot. His machine was a "Farman Sport," a small biplane with 45 h.p. Anzani engine. (What happy memories the sight of "45 Anzani" conjures up!) Starting from the Lyon aerodrome at Bron shortly before 5.30 a.m. on Friday, August 19, Bossoutrot landed at Nîmes about 8 a.m. and, after filling up, proceeded to Pau, where he arrived at 12.25, leaving again some ten minutes later. Scarcely had he got away, however, before he had to make a forced landing, during which he damaged his undercarriage. The reason for the forced landing is given as engine trouble caused by the poor quality of the petrol with which he was supplied at Nîmes. Bossoutrot had to abandon the attempt.

Bajac's Two Attempts

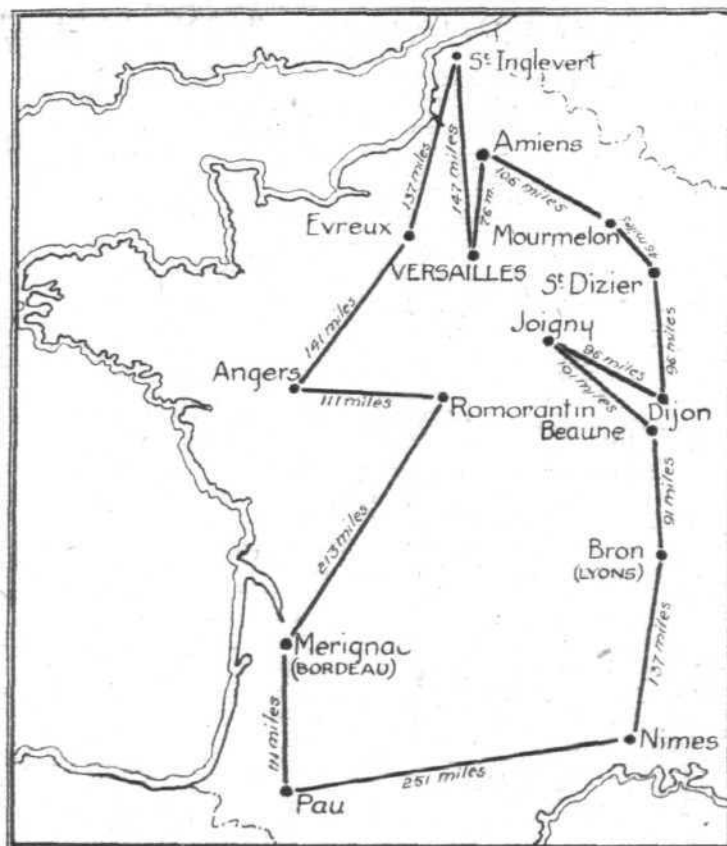
The second competitor to make an attempt was Bajac, who was flying a Spad-Herbemont, 80 h.p. Rhône engine. He started from Buc (one of the aerodromes in the Versailles district) at 5.51 on August 28, and proceeded towards Amiens, his first landing-point. He was heard circling about, but owing to fog he was unable to locate the aerodrome, and finally, after circling round several times, had to return to Buc, where he landed about 8 o'clock.

The next day he made a fresh start at 5 hrs. 28 mins. 52 secs. He arrived safely at Amiens and proceeded towards Mourmelon, where he alighted at 7.40. Leaving again five minutes later, he made his prescribed landings at Saint-Dizier and Dijon, arriving at Joigny 10.05. After "signing the book" he left again at 10.15 for Beaune, where he landed according to the rules, proceeding towards Bron, where he landed about 2 o'clock. After filling up he got away from Bron at 2.50, and landed at Nîmes at 4.36. Getting away again at 4.48, he headed for Pau, where he landed just before dark. Getting away early the next morning, he proceeded towards Merignac (Bordeaux), but engine trouble forced him to land at Tarbes, and he gave up the attempt.

Poirée Succeeds

The third attempt was made by Poirée on a type 60 Caudron biplane, 130 h.p. Clerget engine. This machine, a fuselage biplane, is similar in a general way to that used by Poirée in the

Monaco speed contest. Leaving Villacoublay (one of the "Versailles" aerodromes) at 4 hrs. 49 mins. 22 secs. on the morning of August 29, he touched at Amiens and landed at Mourmelon at 7.10. After filling up he left at 7.50, Saint-Dizier and Dijon were passed, and at 10.05 he landed at Joigny, at the same time as Bajac. Leaving again at 10.15, both pilots proceeded together, but the superior speed of the Caudron with its 130 h.p. engine soon left Bajac behind, and a landing was made at 1 o'clock at Bron. Here a stop of one hour was made for lunch and replenishments, and at 2 Poirée got away for Nîmes, where he landed at 3.58. Getting away again at 4.22, he headed for Pau, which was reached at 8.0. After spending the night at Pau, Poirée left at dawn on August 30 and arrived at Merignac (Bordeaux) at 7.08, leaving again at 7.12. Romorantin was reached at 11.05



and left again at 11.10. By midday Angers was reached, and getting away from there at 12.45, Poirée landed at Evreux at 2.30. Leaving at 2.35, he landed at St. Inglevert (five miles S.E. of Calais) at 4.25 and got away again at 4.30, arriving at the home aerodrome at Villacoublay at 6 hrs. 03 mins. 02 secs., having completed the 1,860 miles in 37 hrs. 14 mins. 40 secs., or at an average speed of just under 50 m.p.h. This figure includes, of course, the time spent at aerodromes and the stop overnight at Pau. In other words, it is elapsed time and not flying time. Thus for the time being, at any rate, Poirée is the holder of the Cup. It is, however, more than likely that other competitors will make the attempt before the end of the year and, by a better performance, become temporary holders of the Cup.



A Fire-Resisting Dope Test

At the invitation of Messrs. Imber Anti-Fire Tanks, Ltd., of Tottenham, we were present at a test, which was carried out at Hendon aerodrome last Saturday, of a somewhat unusual and daring character. The purpose of the test was to demonstrate the fire-resisting properties of a new dope by setting fire to some petrol, previously applied, on the wings of an Avro, whilst the machine was in full flight.

Unfortunately, however, the method employed in carrying out this test, though ingenious in theory, was unsatisfactory in practice, the rush of air caused by the machine's rapid flight preventing the flames from spreading further than one

or two tins containing petrol-soaked cotton wool mounted along the leading edge.

We understand some other arrangement is being thought out and further trials will be made shortly, when we hope to be able to make a full report on the results obtained.

Nevertheless, the experiment showed that where the fabric had come into contact with the flame, only small holes were scorched into the planes, the dope having apparently succeeded in resisting any smouldering or spread of flame. It also showed that the pilot of the Avro, Mr. Phillips, had a most remarkable store of pluck and confidence—he appeared to be most disappointed at not being able to complete a couple of circuits enveloped in a mass of flame!

THE ROYAL AERO CLUB OF THE U.K.

OFFICIAL NOTICES TO MEMBERS

CROYDON AVIATION RACE MEETING

The first Croydon Aviation Race Meeting will take place at Waddon Aerodrome, Croydon, on Saturday, September 17, 1921, commencing at 3 p.m.

Members of the Club will be admitted free to Waddon Aerodrome on presentation of their Membership Cards. A charge of 5s. each will be made for motor cars.

The following entries have so far been received:—F. J. Ortweiler (S.E. 5A), Capt. A. F. Muir (S.E. 5A), Capt. F. S. Cotton (S.E. 5A), Lieut.-Col. Spenser D. A. Grey (Avro), Capt. H. A. Petre (Avro), W. R. Bailey (Avro), Vice-Admiral Mark Kerr (B.E. 2E), Sqdn.-Ldr. G. A. Bowman (Sopwith Snipe), Capt. A. F. Muir (Avro), F. G. M. Sparks (Avro).

GORDON-BENNETT BALLOON RACE

The Gordon-Bennett Balloon Race will take place at Brussels on Sunday, September 18th, and the following countries have entered:—Great Britain, Belgium, France, Italy, Spain, Switzerland and United States.

Great Britain will be represented by two balloons, each of

80,000 cubic feet capacity:—"Banshee III," Lieut.-Col. J. D. Dunville, Mrs. J. D. Dunville, Sqdn.-Ldr. F. A. Baldwin; "Margaret," Ernest Allen, Henry Spencer.

HENRY DEUTSCH DE LA MEURTHE CUP

The contest will take place on October 1, 1921, at Ville-sauvage, near Etampes, and the Royal Aero Club has sent in an entry on behalf of the Gloucestershire Aircraft Company.

The machine entered is the "Bamel I," the winner of the recent Aerial Derby, and will be piloted by Mr. J. H. James.

"R.38" MEMORIAL SERVICE

The Royal Aero Club was represented by Brig.-Gen. Sir Capel Holden, K.C.F., F.R.S. (Chairman), Vice-Admiral Mark Kerr, C.B., M.V.O., Maj.-Gen. Sir Sefton Brancker, K.C.B., Col. F. Lindsay Lloyd, C.B., C.M.G., Lieut.-Col. H. Delacombe and Mr. H. E. Perrin.

Offices: THE ROYAL AERO CLUB,
3, CLIFFORD STREET, LONDON, W. 1.

H. E. PERRIN, Secretary.



London Gazette, August, 19

Flying Branch

Sec. Lieut. (Hon. Lieut.) A. C. S. Buist, M.C., is re-classified Flying, A. from Ad.; May 23, 1919.

Technical Branch

Lieut. E. D. Dawson (Unemployed List) relinquishes his temporary commn. on appt. to I.A.R.O.; July 15, 1920.

Memoranda

Two Cadets are granted hon. commns. as Sec. Lieuts., with effect from the dates of their demobilisation.

Errata

Gazette, Aug. 2, 1921.—In notification concerning Flying Offr. W. E. Gandell, for *Gazette, July 6*, read *Gazette of July 5*.

Gazette, Aug. 5.—For J. M. Peel read G. J. M. Peel.

London Gazette, August 23

Permanent Commissions

Wing-Comdr. J. B. Bowen, O.B.E., is appointed Deputy-Director, Air Ministry; Aug. 1. Wing-Comdr. A. D. Warrington-Morris, C.M.G., O.B.E., is appointed Deputy-Director, Air Ministry; Aug. 1, 1919. (*Gazette Aug. 2* stands).

Short Service Commissions

The following are granted short service commns. in the ranks stated, with effect from, and with sen. of, the dates indicated, except where otherwise stated:—

Flying-Officer from Flight-Lieut.—F. J. W. Mellersh, A.F.C.; Aug. 11.

Flying Officers.—J. L. Airey, D.F.C.; Aug. 12. W. R. B. Annesley; July 20. (Substituted for *Gazette*; Aug. 2. T. B. Bruce, M.C.; Aug. 10. L. G. Nixon; Aug. 12.

Flying Officer from Pilot Officer.—H. N. Thornton; Aug. 16. Flying Officer Mellersh will be placed at the head of the list of Flying Officers, but junior to all officers who have been similarly reduced in rank on the grant of permanent or short service commns. Flight-Lieut. H. M. Ireland, D.F.C., is transfd. to the Reserve, Class A; Aug. 5. *Gazette Sept. 12, 1919*, appointing Flight-Lieut. F. J. Vincent to a short service commn. is cancelled.

Flying Branch

Lieut. W. V. Hyde to be Lieut. (A.) from Lieut. (O.); Oct. 17, 1918 (substituted for *Gazette, Nov. 8, 1918*). Lieut. E. A. Shearer is transfd. to the unempld. list; Jan. 28, 1920 (substituted for *Gazette Feb. 6, 1920*). Flight-Lieut. H. J. Segrave (Capt. Wilts. R.) relinquishes his temp. commn. on return to Army duty; Aug. 22.

Administrative Branch

The following relinquish their temp. commns. on return to Army duty:—Sqdn.-Ldr. E. G. H. Clarke, M.C. (Capt. E. Surr. R.); Aug. 5. Flying Officer E. H. Mayers (Lieut. D.C.L.I.); Aug. 8.

Technical Branch

Capt. T. Agius is transfd. to the unempld. list; March 19.

Memoranda

The Hon. Sec.-Lieut. F. M. G. N. Agnew relinquishes his hon. commn. on joining the Army; July 26. Maj., actg. Lieut.-Col., A. R. Martin, from S.O., is transfd. to the unempld. list; Feb. 2, 1919.

London Gazette, Aug. 26

Short Service Commissions

Flying Offr. O. E. Carter is granted a short service commn. retaining his present substantive rank and sen.; Oct. 24, 1919. (Substituted for *Gazette Oct. 24, 1919*.) S. Graham, M.C. (Lieut. the Black Watch, attd. R.A.F.), is granted a short service commn. as a Flying Offr., with effect from and with sen. of Oct. 24, 1919. (Substituted for *Gazette Oct. 24, 1919*.) Obs. Offr. A. W. Bloy is cashiered by sentence of Gen. Court-martial; Aug. 10.

Stores Branch

Gazette July 19 concerning Flying Offr. on prob. J. L. Armstrong is cancelled. (*Gazette Aug. 16* stands.)

Flying Branch

Transferred to the unempld. list:—Sec. Lieut. (Hon. Lieut.) P. H. Turner, M.C.; Feb. 11, 1919. Maj. H. B. Davey, M.C.; Aug. 21.

Memoranda

Two cadets are granted hon. commns. as Sec. Lieuts., with effect from the dates of their demobilisation.

London Gazette, August 30

All officers who are on Unemployed List of R.A.F. on Aug. 31 are released from further liability to serve as officers of R.A.F. They will relinquish their commns. with effect from Sept. 1, with permission to retain rank which was notified to them in Air Ministry letter intimating that they were transferred to Unemployed List.

Permanent Commissions

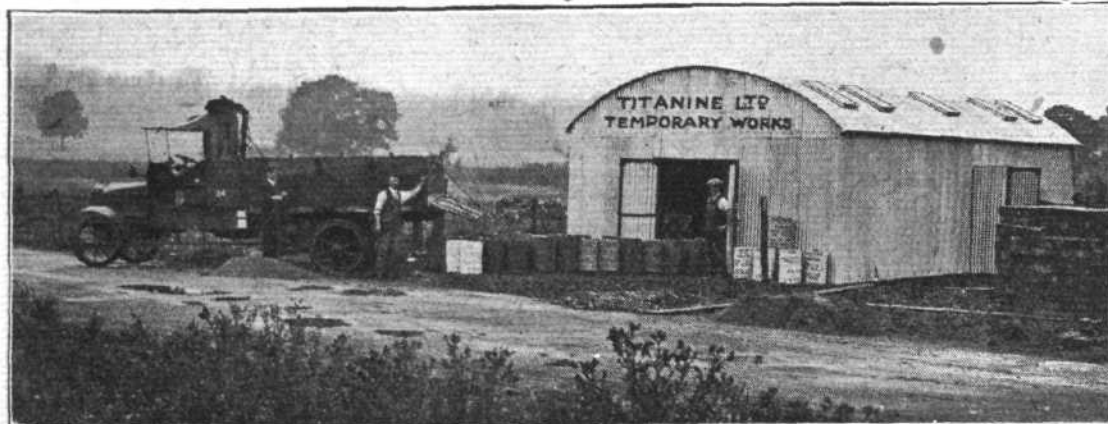
Observing Officer J. F. G. Boyle resigns his commn., and is permitted to retain rank of Lieut.; Aug. 24. Flying Officer W. B. Farrington, D.S.O., is placed on half pay, Scale A, from Aug. 1, 1919, to Aug. 25, 1919, inclusive. Flight Lieut. A. W. Bird, D.S.O., is placed on half pay, Scale B; July 2.

Stores Branch

Flying Officer F. C. P. Roberts is granted a permanent commn., retaining his present substantive rank and seny.; June 17, 1920.

Short Service Commissions

The following are granted short service commns., as Flying Officers, with effect from, and with seny. of, dates indicated:—V. H. Clift; Aug. 17. J. A. Stedman Aug. 18. Flying Officer J. L. Findlay, M.C., resigns his commn., and is granted rank of Capt.; Aug. 31. Flying Officer A. W. Southall resigns his commn., and is permitted to retain rank of Lieut.; Aug. 31.



Titanine carries on. When the recent fire occurred at the Titanine Works at Hendon, we were able to announce immediately that the Company's dope was available just the same. Herewith are seen the developments within 14 days of the fire, with one of the lorries taking delivery. In the interval the firm were manufacturing in the open field adjoining the destroyed works.

PERSONALS

Deaths

ALBERT EDWARD AINSWORTH, of 37, St. Mary Axe, London, late 2nd Lieut. R.A.F., died on August 29, at Hindhead, from heart failure, after a long illness contracted on active service during the War. His age was 45.

Married

Colonel Sir PIERRE VAN RYNEVELD, K.B.E., D.S.O., M.C., son of Mr. and Mrs. D. J. van Ryneveld of Theunissen, O.F.S., South Africa, was married on September 1 at the Dutch Reformed Church, Capetown, to ENID KATHLEEN HELEN, only child of Mr. STUARTSON COLLARD, F.R.C.S.Eng., and Mrs. STUARTSON COLLARD, of Haling Park Cottage, Croydon, Surrey.

To be Married

A marriage has been arranged between EDWARD PARKER STAPLETON, O.B.E., late Major, R.A.F., youngest son of the Rev. F. G. Stapleton, Vicar of Seamer, Yorkshire, and FRANCES MARY, only child of the late Canon CHAMPNEYS, Vicar of Haslingden, Lancashire, and of Mrs. CHAMPNEYS, of 13, Palace Gate, Kensington.

The engagement is announced between Flying Officer PERCY H. BURT, Royal Air Force, only son of Mr. and Mrs. H. C. Burt of Harborne, Birmingham, and Miss R. M. M. WYNNE (MOLLY), only daughter of CHARLES WYNNE, Esq., Shepherd's Market, Mayfair, London.

Items

Mrs. F. Gore Anley, Mrs. G. Cecil Whitaker, and the Hon. Mrs. Claud Brabazon wish to express their heartfelt thanks for the many kind messages of sympathy received by them on the death of their brother, the late Air-Commodore E. M. MAITLAND, C.M.G., D.S.O., A.F.C., Royal Air Force, in the disaster to the airship "R.38" on August 24. It is impossible at present to answer them all personally, but they hope to do so in the near future.

HONOURS

It was announced in the *London Gazette* of September 2 that His Highness the Bey of Tunis has conferred upon Lieut. E. G. Macintyre, Royal Air Force, the Order of Nichan-Iftikhar (3rd Class), for valuable services rendered in connection with the War.

Relinquishment of R.A.F. Stations

THE land and buildings comprising the under-mentioned R.A.F. stations have been passed to the Disposal Board for disposal: Balloon Stores Depot, Kingsnorth; Airship Constructional Station, Barrow-in-Furness; and Kite Balloon and Seaplane Station, Houton Bay, Orkney Isles.

Sadi Wins Italian Grand Prix

IN connection with the Italian Grand Prix for motor-cars at Brescia, from September 4 to 11, a "Gran Premio d'Italia d'Aviazione" was flown on September 4, which was won easily by Sadi Lecointe, on a Nieuport-Delage biplane, 300 Hispano-Suiza engine. Thirty-six entries for this race had been received, of which the following started:—Stoppini (Ansaldo), Ganzini (Gabardini), Leonardi (Gabardini), Barattini (Spad), Beghetti (Gabardini), Ferrario (Ansaldo), Brack Papa (Fiat), Lordi (Fiat), Sadi Lecointe (Nieuport-Delage), Massi (Spad), Zambelli (Gabardini), and Lovadina (Ansaldo). The course was one of 280 kiloms. (174 miles), and was covered in the shortest time by Sadi, whose time was 1 hr. 13 mins. 9 secs., or an average speed of 132 m.p.h. Brack Papa on the Fiat was second, his time being 1 hr. 18 mins. 58 secs.

Entries for Deutsch Cup

THE final entries list for the Coupe Deutsch, to be flown at Etampes on October 1, is as follows:—(1) Hanriot (Rost); (2) Lumière de Monge (de Romanet); (3) Nieuport; (4) Sesquiplan Nieuport-Delage; (5) Ditto; (6) Mars I (J. H. James, and (7) Fiat. The pilot of the Fiat is not yet announced, but will probably be Brack Papa, who obtained second place in the Italian Grand Prix. The pilots of the Nieuports will be Lannes, Kirch and Lecointe, although it has not yet been announced who will pilot which. It appears probable that Lannes will fly the older type (No. 3), while Kirch and Lecointe each take one of the new one-and-a-half planes (Sesquiplan). It is extremely gratifying to see the Mars I entered for this country, and knowing the machine and pilot we have no hesitation in saying that we feel sure the French pilots will have all their work cut out. It is one thing to establish speed records over a kilometre, with the human element entering into the timing with stop-watch, but quite another to fly in the same race, and we personally have every hope for the British entrant with his 450 h.p. Napier Lion engine.

SIDE-WIND

IN view of the strenuous work which will have to be done by the little Avro Seaplane which Sir Ernest Shackleton is taking with him to the Antarctic, it is not in the least surprising to learn that this machine is equipped throughout with instruments by S. Smith and Sons (M.A.). On such a trip nothing can be left to chance, and the reputation of Smith instruments is such that these would naturally come to mind instantly when thinking of equipment.

NOTICE TO AIRMEN

Aerodromes for Civil Use: Amendments

LIST C.—Licensed Civil Aerodromes.

Weymouth, Lodmoor, should be added.

No. 62 of 1921.

PUBLICATIONS RECEIVED

Hints on Working Aluminium: No. 1, Ingots; No. 2, Sheet; No. 3, Circles; No. 4, Tubes; No. 5, Sections. The British Aluminium Co., Ltd., 109, Queen Victoria Street, London, E.C. 4.

Technical Note No. 63. The Employment of Airships for the Transport of Passengers. By Umberto Nobile. National Advisory Committee for Aeronautics, Navy Building, Washington, D.C., U.S.A.

NEW COMPANY REGISTERED

BERKSHIRE AVIATION CO., LTD., The Mulberries, East Hanney, Wantage, Berks.—Capital £1,000, in £1 shares. Acquiring business of aerial transport and motor engineers carried on by J. D. V. Holmes and J. C. C. Taylor at East Hanney, Berks, as the "Berkshire Aviation Co." Permanent managing directors: J. D. V. Holmes and J. C. C. Taylor.

AERONAUTICAL PATENT SPECIFICATIONS

Abbreviations: cyl. = cylinder; I.C. = internal combustion; m. = motors. The numbers in brackets are those under which the Specifications will be printed and abridged, etc.

APPLIED FOR IN 1920

Published September 8, 1921

- 3,986. S. DE SANTIS. Aircraft stabilising. (167,510.)
13,537. T. G. EGGLESTON. Aeroplane supporting planes or wings. (167,602.)
15,982. C. W. KAY and CALLENDERS CABLE AND CONSTRUCTION CO., LTD. Mechanism for straining up wires, etc. (167,641.)
35,368. MAYBACH-MOTORENBau Ges. Cylinder mounting of I.C. engines. (155,539.)

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